

Capitol Lake Adaptive Management Plan

A Vision for the Next Ten Years 2003 – 2013

Executive Summary

History

Capitol Lake is actually a 320-acre reservoir. It was created in 1951 when the state constructed an earthen dam, 80-foot concrete spillway and bridge along 5th Avenue in Olympia. The dam blocked the tidal flow of Budd Inlet and changed the mudflats of the Deschutes River estuary into a lake.

The idea of creating a lake comes from the 1911 Capitol Campus design plan. The lake was meant to serve as a reflecting pool for the Legislative Building and to enhance the scenic views of the Olympic Mountains and Puget Sound from the Capitol Campus and the hillsides surrounding the city. Deschutes Parkway, which runs along the western shore of the lake, was constructed at the same time as the dam. The state Department of General Administration manages the parkway and the lake.

Lake Management Issues

Sediment transported by the Deschutes River and Percival Creek is slowly filling in the lake. Within the next few years, it is unlikely that the sediment will change the appearance of the north basin of the lake, adjacent to Heritage Park, but islands may appear in the middle basin, near Marathon Park, over the next 10 years. Vegetation will grow on these islands and the lake will gradually have less open water.

Water quality is another key lake management issue. The lake is listed on the state Department of Ecology's list of impaired water bodies for fecal coliform bacteria and phosphorus. In aquatic environments, fecal coliform bacteria poses a potential health risk to individuals exposed to this water. This is one reason why the lake is closed to swimming. A high level of phosphorus promotes the growth of algae and weeds, which rob water of oxygen as they decay. This causes fish and other aquatic life to die and also reduces water clarity.

Adaptive Management for Capitol Lake

A lake management plan evolved from General Administration's requests in 1995 and 1996 for state permits to construct Heritage Park and to dredge the middle basin of the lake. In 1997, the agency organized an interagency task force to develop a long-term lake management plan. Since then, the **Capitol Lake Adaptive Management Plan (CLAMP) Steering Committee** has met regularly to review new studies of aquatic conditions within the basin and to weigh alternatives for managing the lake and adjoining infrastructure.

The CLAMP Steering Committee considered a range of management options – from dredging sediment to keep an open-water lake, to removing the dam to reestablish a

saltwater estuary. After a review of the costs and environmental permits associated with different management plans, the committee agreed to maintain a freshwater lake during the next 10 years. The committee identified 12 objectives for improving lake management during that time period. The overall goals of the plan are to improve water quality, fish and wildlife habitat, and public recreational opportunities, while managing flood control, sediment deposits and adjacent infrastructure, such as Deschutes Parkway.

A basic principal of adaptive management is frequent communications with jurisdictions, stakeholders and the public. The 10-year plan will be continually modified as new scientific information and the results of management practices become available. The committee will hold annual public meetings beginning in 2003 and publish an annual "report card" evaluating the past year's performance for reaching each of the plan's objectives.

Objectives for managing Capitol Lake Basin for the next 10 years (2003-2013)

1. Restore earthquake-damaged state infrastructure within the basin.
2. Complete the development of Heritage Park.
3. Expand and enhance public use of state-owned lands and adjacent public spaces within the Capitol Lake region.
4. Develop and implement a flood hazard management strategy to protect lands adjacent to Capitol Lake.
5. Rehabilitate the fish ladder in the Capitol Lake dam to provide year-round fish passage into and out of Capitol Lake.
6. Relocate Percival Cove fish-rearing operation and rehabilitate Percival Cove for other uses.
7. Improve lake edges to be fish-, wildlife- and people-friendly.
8. Maintain Capitol Lake with fewer than 100 resident Canada geese.
9. Improve the water quality in Capitol Lake to meet state standards.
10. Eliminate purple Loosestrife, Eurasian Milfoil noxious weed infestations throughout Capitol Lake.
11. Develop and implement a comprehensive sediment management strategy for the Capitol Lake basin.
12. Communicate with the community, legislators and the State Capitol Committee on a routine basis regarding Capitol Lake.

CLAMP Steering Committee Members

- Department of General Administration
- Department of Ecology
- Department of Fish and Wildlife
- Department of Natural Resources
- Squaxin Island Tribe
- City of Olympia
- City of Tumwater

- Thurston County
- Port of Olympia

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